

REMARKS

Entry of the foregoing and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.114 and in light of the remarks which follow, are respectfully requested.

By the above amendments, claim 5 and 6 have been amended to recite "average" prior to "particle diameter". New claim 7 has been added which recites that the average particle diameter of the polymeric organic particles is from 65 to 500 nm. Support for the above amendments can be found in the instant specification at least at page 13, lines 14-18, taken in connection with page 25, lines 1-4. Entry of the foregoing amendments is proper at least because a Request for Continued Examination is being filed herewith. See 37 C.F.R. §1.114.

In the Official Action, claims 1, 2, 5 and 6 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,361,768 (*Galleguillos et al.*). Withdrawal of this rejection is respectfully requested for at least the following reasons.

At the outset, Applicants note the Examiner's assertion that "it is not clear why the Applicant believes that the Examiner has attempted to combine Galleguillos et al with additional subject matter not disclosed by Galleguillos et al, in order to cure deficiencies." Advisory Action at page 2. In response to the Examiner's query, the Examiner's attention is directed to the following statement at page 3 of the Official Action dated April 14, 2008:

In the ink jet recording medium art, a coating composition that is used to form an ink receiving layer **can** either be organic solvent based or water based. The coating composition may not even be organic solvent based or water based, **if** the coating is being cured via radiation curing.
[Emphases added.]

The Examiner has not indicated whether she is asserting that the above subject matter is disclosed by a separate prior art reference, or is inherently disclosed by *Galleguillos*

et al. In any event, *Galleguillos et al* provides no explicit or implicit disclosure of employing an organic solvent or radiation curing in connection with its paper coating, and the Examiner has not provided any explanation of how *Galleguillos et al* inherently discloses such subject matter. Rather, as highlighted above, the Examiner merely raises the possibility of employing an organic solvent or radiation curing in connection with its paper coating. Thus, any reliance on a theory of inherency in the present case is untenable.¹

Since the theory of inherency cannot be relied on, it appears that the Examiner has attempted to combine *Galleguillos et al* with the additional subject matter discussed above in order to cure its deficiencies. However, as previously noted, the present rejection is an anticipation rejection based on 35 U.S.C. §102(b). As is well established, such a combination is impermissible in an anticipation rejection under §102(b). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in **a single prior art reference**. [Emphasis added.]" *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Furthermore, as noted in Applicants' previous response, claim 1 recites that the at least one ink receptive layer contains polymeric organic particles provided on a support, wherein such particles have an average particle diameter of 1 to 500 nm. Thus, according to claim 1, the recited polymeric organic particles are, by definition, in particle form when present on the support. *Galleguillos et al*, on the other hand, teaches that the copolymer is dissolved when employed in a coating. See col. 3, lines

¹ To the extent the Examiner has taken Official Notice, Applicants again respectfully traverse the Examiner's assertion. The Examiner has not provided specific factual findings predicated on sound technical and scientific reasoning to support her conclusions of common knowledge, as required by M.P.E.P. §2144.03. Specifically, no reasoning has been provided as to why it is common knowledge to employ an organic solvent or radiation curing together with the *Galleguillos et al* polymer, especially when *Galleguillos et al* teaches the use of water.

56-58. Quite clearly, such coating does not contain the copolymer in particle form, but rather the copolymer is present in a dissolved state. The submicron particle size range disclosed in the abstract of *Galleguillos et al* relates to the particles before they are dissolved in the composition. *Galleguillos et al* clearly teaches that its copolymer particles dissolve readily upon addition to the composition. As such, when the composition is employed as a paper coating, as relied on by the Patent Office, it is clear that the copolymer is no longer in the form of particles, but rather is in a dissolved state.

Citing column 4, lines 59-63 and column 8, lines 41-52 of *Galleguillos et al*, the Examiner has taken the position that "There is nothing that teaches or suggests in the prior art that the (co)polymer will no longer be in the form of particles." Advisory Action at page 2. Such portions of *Galleguillos et al* are reproduced below:

The monomers employed in preparing the copolymer are preferably water soluble and sufficiently soluble in the polymerization media to form a homogeneous solution. They readily undergo polymerization to form polymers which are water-dispersible or water-soluble.

* * *

Optionally, a hydrophobic monomer is employed to modify the properties of the resulting copolymer. Suitable hydrophobic monomers include those which are (1) water-insoluble, (i.e., less than 0.2 weight part of the hydrophobic monomer will dissolve in 100 weight parts of water) and (2) ethylenically unsaturated compounds having hydrophobic associative groups, herein referred to as hydrophobic moieties usually added at less than 2% mol of the total copolymer composition. The hydrophobic monomer increases the thickening efficiency of the copolymer through inter molecular, non-polar association.

While the disclosure at column 4 of *Galleguillos et al* states that the polymers are water-dispersible or water-soluble, *Galleguillos et al* further discloses that "The copolymer dissolves readily in water and builds up viscosity when added to water-based compositions." Col. 3, lines 56-58. Thus, even if a water-dispersible polymer would have been chosen by the ordinarily skilled artisan, *Galleguillos et al* clearly teaches that

the particles must be rendered readily dissolvable in water. Furthermore, while *Galleguillos et al* at column 8 discloses the use of a hydrophobic monomer, there is no mention that the use of such monomer renders the resulting particles water insoluble. Rather, *Galleguillos et al* specifies that such hydrophobic moieties should be added at less than 2% mol, and that the purpose of such additive is to increase the thickening efficiency of the copolymer through inter molecular, non-polar association. See col. 8, lines 50-52.

Furthermore, it is respectfully but strenuously submitted that *Galleguillos et al* does not clearly and unequivocally disclose the ink jet recording medium as claimed, without any need for picking and choosing from a laundry list of disclosures. See *In re Arkley*, 172 USPQ 524 (CCPA 1972). Indeed, there is no specific or working example in *Galleguillos et al* which meets all of the characteristics of claim 1. Rather, when presented with the *Galleguillos et al* disclosure, the ordinarily skilled person would have had to choose (1) the specific claimed average particle diameter range from within the broader range of submicron particle size; (2) a water-dispersible polymer from the numerous polymers disclosed therein; and (3) a paper coating from the numerous applications disclosed at columns 18 and 19. Quite clearly, in view of such picking and choosing that would have been necessary, it is clear that *Galleguillos et al* does not constitute an anticipation of independent claim 1.

In addition, attached for the Examiner's consideration is a Declaration Under 37 C.F.R. §1.132 of Masaya Kusumoto dated September 5, 2008 (hereinafter referred to as the "Fifth Declaration"), in which the solubility parameter values of Experiments I, II and III discussed in the Declarations Under 37 C.F.R. §1.132 of Masaya Kusumoto dated December 3, 2007 and June 2, 2008, were calculated. As discussed at pages 4 and 5, the solubility parameter values of Comparative Experiments I and II were

calculated to be 11.44 and 13.36, respectively. By comparison, the solubility parameter value of exemplary Experiment III was calculated to be 9.80. As noted at page 6 of the Fifth Declaration, it is believed that such difference in solubility parameter values can be attributed to the relatively higher concentration of non-ionic hydrophilic monomer of the comparative experiments. Such experimental results further demonstrate the differences between the claimed particles and the dissolved particles disclosed by *Galleguillos et al.*

For at least the above reasons, *Galleguillos et al* fails to constitute an anticipation of independent claim 1. Accordingly, for at least the above reasons, withdrawal of the above §102(b) rejection is respectfully requested.

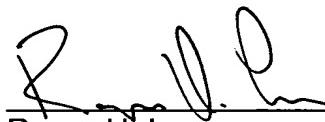
From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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